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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/671,567	09/27/2000	Ming-Tsun Hsieh	JCLA5635	4641

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J C Patents INC
4 Venture
Suite 250
Irvine, CA 92618

EXAMINER

VILLECCO, JOHN M

ART UNIT PAPER NUMBER

2612

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/671,567

Applicant(s)

HSIEH, MING-TSUN

Examiner

John M. Villecco

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 is/are allowed.
- 6) ☒ Claim(s) 10-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed November 22, 2004 have been fully considered but they are not persuasive.

2. Regarding claim 10, applicant argues that Ayukawa fails to teach that the data stored in the different address are consecutive. Applicant argues that instead, Ayukawa teaches that the addresses of the data items are consecutive, not the actual data items. However, the examiner fails to see the distinction between the data items and the address data items when applied in a manner such that Ayukawa is used to show that consecutive data items can be accessed faster if stored sequentially. The fact that Ayakawa teaches that the data item addresses are stored sequentially is irrelevant, since Ayakawa is used as a general teaching of storing items sequentially so they can be accessed much faster then if they are scattered around the memory. One of ordinary skill in the art would have recognized that in order to quickly access the pixel data stored in the memory of Younse it would have been obvious to store the data sequentially so that it can be accessed faster.

3. Therefore, the rejection of claims 10-12 from the previous office action will be repeated.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Younse et al. (U.S. Patent No. 4,805,023) in view of Ayukawa et al. (U.S. Patent No. 6,404,694).

6. Regarding *claim 10*, Younse discloses a CCD imager defect compensator which includes a PROM (11) for storing a plurality of defective pixel addresses and a comparator (13) for comparing the defective pixel address with the current pixel address from the pixel address counter (15). When the defective pixel address and the pixel address are the same an inhibit signal is output. This is interpreted to be a defective pixel flag since it is designating that the current pixel is a defective pixel. See column 2, line 43 to column 3, line 30.

However, Younse fails to specifically disclose that the defective pixel addresses are arranged in an ascending order in the memory element. Ayukawa, on the other hand, discloses that it is well known in the art to output data in ascending order because it is a fast way to output the data. See column 15, line 35 to column 16, line 31. Ayukawa discloses that processors generally read data items consecutively, from consecutive addresses. When used in conjunction with Younse it would have been obvious to access the memory sequentially, thus storing the pixel addresses in ascending order, in order to facilitate the speedy readout of the pixel data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to store the pixel addresses of Younse in ascending order so that they may be accessed sequentially in a fast manner, thus enabling less processing in order to output the required image data.

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7. As for *claim 12*, Younse discloses the use of a line pointer which supplies the address for the PROM (33). The line pointer is interpreted to be the index. See column 3, lines 36-38.

8. **Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Younse et al. (U.S. Patent No. 4,805,023) in view of Ayukawa et al. (U.S. Patent No. 6,404,694) and further in view of Heller et al. (U.S. Patent No. 6,396,539).**

9. Regarding *claim 11*, as mentioned above in the discussion of claim 10, the combination of Younse and Ayukawa discloses all of the limitations of the parent claim. However, neither Younse nor Ayukawa specifically discloses that the memory element is a fuse array. Heller, on the other hand, discloses that it is well-known in the art to use a fuse array to store defective pixel addresses. More specifically, Heller discloses a fuse memory (14) for storing the defective pixel locations of the imager (12). It is well known in the art that a fuse memory is a type of PROM. The use of a fuse memory is a more specific memory arrangement for use in Younse and one of ordinary skill in the art would have taken into consideration the different types of memories for storing the defective pixel addresses. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a fuse memory for the PROM memory of Younse.

Allowable Subject Matter

10. Claims 1-9 are allowed.

11. The following is an examiner's statement of reasons for allowance:

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Regarding claims 1 and 5, the primary reason for allowance is that the prior art fails to teach or reasonably suggest comparing the defective pixel address with an empty signature if the sensor address is not equal to the defective pixel address and then increasing the index value by one unit if the defective pixel address is equal to the empty signature.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

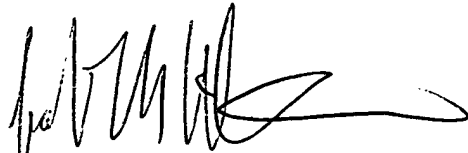
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Villecco whose telephone number is (571) 272-7318. The examiner can normally be reached on Monday-Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (571) 272-7308. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John M. Villecco
May 2, 2005



WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600